INTERMOUNTAIN STATION
Central Reference File
No. D.13 x1.61

U. S. Department of Agriculture - Forest Service

PSW Pacific Southwest Forest and Range Experiment Station - Berkeley, California

U. S. FOREST SERVICE RESEARCH NOTE PSW-32 1963

Ten-Year Performance

of a California Planting of Progenies of "Elite" and "Non-Elite" Pinus radiata from Australia

ABSTRACT: Progenies derived from two 'elite' and three 'non-elite' Australian Monterey pines have been growing in California for 10 years. In diameter and height growth and branching habit, there is still no evidence that the two outstanding phenotypes from Australia produce genetically superior wind-pollinated progenies for California planting.

Height growth of wind-pollinated progenies derived from two "elite" and three "non-elite" Monterey pines (Pinus radiata D. Don) growing in Australia was essentially the same after their first five growing seasons in the Berkeley Hills of California.[1] Now at 10 years of age after a period of rapid height and diameter growth, the progenies from both elite trees are slightly taller than those from the non-elite parents (table 1). Progenies of one of the elite parents also had the largest mean diameter at breast height. But these differences both in height and in diameter between elite and non-elite progeny were not statistically significant.

---

[1] Righter, F. I., and Callaham, R. Z. A California planting of progenies of 'elite' and 'non-elite' Pinus radiata from Australia. U.S. Forest Serv. Calif. Forest & Range Expt. Sta. Res. Note 135, 3 pp. 1958.

CENTRAL FILE COPY

INTERMOUNTAIN STATION
Central Reference File
No.

Table 1. Characteristics of Australian Pinus radiata progenies grown in California for 10 years

Parent tree	Height	Diameter breast height	Branch whorls in 1962	Branches in primary whorl 1962
	Feet	*Inches*	*Number*	*Number*
Elite 1	21.2	4.4	2.3	6.0
Elite 2	21.2	4.2	2.1	5.6
Non-elite 1	19.0	3.9	2.2	5.9
Non-elite 2	20.5	4.2	2.2	6.0
Non-elite 3	19.8	4.2	1.9	5.9

The elite parents were rated originally as having a better branching habit than the non-elite parents. A difference in branching habit is not reflected in their wind-pollinated progeny. The number of branch whorls and of branches in the primary whorl formed during 1962 were the same for both elite and non-elite progenies.

On the basis of their first 10-year performance, there is still no evidence that the two outstanding phenotypes from Australia produce genetically superior wind-pollinated progenies for California planting.

Seed source, experimental design, and 1- and 5-year growth performance in this study were described by Righter and Callaham (footnote 1).

--Stanley L. Krugman,
Plant Physiologist,
Berkeley